UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,257	08/21/2003	Kailing James Su	139137	7326

24587   7590   05/02/2008
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EXAMINER
JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
05/02/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 17-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-5 and 8-14* is/are allowed.

6)☒ Claim(s) *17-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)

    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)

    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed on 1/7/2008.

2.   Claims 1-14 and 17-22 are pending.

3.   Claims 1-5 and 8-14 are allowed. The prior art alone or in combination fail to teach or

make obvious on the following when considered in combination with other limitations in the

claims as follows:

For claim 1: the FMS that includes a dynamic component for controlling adaptation of

the packet router to dynamic service requirements and resource conditions, wherein the dynamic

component further includes a monitor resource controller for receiving adaptive selections of

policies from the policy information database and for distributing the generated statistics reports,

and a monitor resource abstraction library that functions as a real-time monitor executive and

generates the statistics reports that affect the RSS selection of control.

For claim 9: means for generating statistics reports that comprises a dynamic component

for controlling adaptation of the packet router to dynamic service requirements and resource

conditions that comprises a monitor resource controller for receiving adaptive selections of

policies from the policy information database and for distributing the generated statistics reports,

a monitor resource abstraction library that functions as a real-time monitor executive and

generates the statistics reports that affect the RSS selection of control, and a monitor data

collector/data source controller for receiving data collected at observation points of means for

receiving and forwarding.

4.   Claims 17-22 are rejected under 35 U.S.C. 103(a)

Claim Objections

5.   Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent

form for failing to further limit the subject matter of a previous claim. Applicant is required to

cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or

rewrite the claim(s) in independent form. The functions of distributing and generating statistics

reports and functioning as a real-time monitor executive are recited in claim 1.

6.   Claims 9 and 17 are objected to because of the following informalities:

-    in claim 9, line 23, "the" should be deleted;

-    in claim 17, line 11, "for" should be deleted;

        line 13, "the control of" should be inserted before "the forwarding of

packets" , see claim 1.

      Appropriate correction is required.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (US

2004/0109414 A1) in view of Shin (US 2002/0138643 A1).

Regarding claims 17-22, Choi teaches a method of providing multi-time scale resource management in a packet router (300, Fig. 3, paragraph 0023), the method comprising:

Managing, by a managed agent, a differentiated services policy information database that stores policies on forwarding packets in the packet router (since the policy based control unit 405 in Fig. 4 enables the QoS control unit 404 and the DiffServ control unit 406 to perform control operations on the basis of policies, paragraph 0024, the policies must be managed by a managed agent and stored in a database and accessible by the policy based control unit 405).

Controlling forwarding of packets in the packet router by a resource server system (router control unit 310, Fig. 3 and 400 in Fig. 4 performs the function of routing control, paragraphs 0023 and 0024).

Monitoring packet flows through the packet router by a flow measurement system (monitoring means must be included in order for event/status information can be sent in step S74 of Fig. 7 by the eGSMP SLAVE 702, paragraphs 0023 and 0034).

Generating statistics reports that affect the forwarding of packets in the packet router by the flow measurement system and distributing the generated statistics reports (router statistics information is generated and sent in step S74, Fig. 7 by the eGSMP SLAVE 702 to the eGSMP MASTER 701 which is part of the router control unit 310, Fig. 3, paragraphs 0024 and 0034).

Receiving and forwarding packets in response to the control of forwarding of packets in the packet router by a hardware forwarding engine (packet forwarding function including DiffServ based QoS function is performed by the ingress processing unit 540 and the egress processing unit 550 in Fig. 5, collectively, paragraph 0025).

However, Choi fails to explicitly teach (i) that the step of controlling forwarding of packets in the packet router is based on adaptive selections of policies from the policy information database, and the steps of (ii) controlling adaptation of the packet router to dynamic service requirements and resource conditions and (iii) receiving adaptive selections of policies from the policy information database as recited in the claim.

As shown in Fig. 1 of an analogous art, Shin teaches a system for adaptive controlling network traffic to a server with an adaptive traffic-shaping feature having a policy manager daemon for storing a set of rule data which represents different service policies for servicing the network traffic, paragraphs 0036, 0039, 0080-0084, and claim 11. Shin further teaches that the load controller/means controls the processing of the incoming packet requests by adaptively selecting a subset of the rule data provided by the a policy manager daemon, paragraphs 0039, 0067, and 0070-0072 (equivalent to controlling forwarding of packets in the packet router based on adaptive selections of policies from the policy information database). Shin further teaches that the policy manager dynamically adjusts its estimate of the focal point/operating point used in creating a filter-hierarchy (FH) as system load or request arrival rates change and the FH is used by the load controller to control the processing of incoming packet requests, paragraph 0083 (equivalent to the steps of controlling adaptation of the packet router to dynamic service requirements and resource conditions and receiving adaptive selections of policies from the policy information database).

Given the teaching of Shin, it would have been obvious to one skilled in the art at the time of the invention to incorporate and apply the adaptive traffic-shaping concept of Shin in the teaching of Choi such that the limitations i, ii, and iii would be included as claimed. The suggestion/motivation to do so would have been to adapt the traffic shaping policies without any a priori capacity analysis or static resource reservation as suggested by Shin (paragraph 0059, lines 9-11).

Response to Arguments

9.   Applicant's arguments filed on 1/7/2008 have been fully considered but they are not persuasive.

A.   In the remarks regarding claim 17, the applicant states that the added limitations were found in claims 15 and 16 which were objected to, therefore, the claim should be in a condition for allowance.

In response, the Examiner respectfully disagrees. The added limitations are disclosed by Choi and Shin as follows:

Choi teaches the step of distributing the generated statistics reports (router statistics information is generated and sent in step S74, Fig. 7 by the eGSMP SLAVE 702 to the eGSMP MASTER 701 which is part of the router control unit 310, Fig. 3, paragraphs 0024 and 0034).

Shin teaches the step of controlling forwarding of packets in the packet router based on adaptive selections of policies from the policy information database (the load controller/means

controls the processing of the incoming packet requests by adaptively selecting a subset of the

rule data provided by the a policy manager daemon, paragraphs 0039, 0067, and 0070-0072

Shin further teaches the steps of controlling adaptation of the packet router to dynamic

service requirements and resource conditions and receiving adaptive selections of policies from

the policy information database (the policy manager dynamically adjusts its estimate of the focal

point/operating point used in creating a filter-hierarchy (FH) as system load or request arrival

rates change and the FH is used by the load controller to control the processing of incoming

packet requests, paragraph 0083).

Clearly, there is no difference in the structure or functions between the claim and the

combined teaching of Choi and Shin. Therefore, claim limitations are met. The rejection is

maintained.

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NITTAYA JUNTIMA whose telephone number is (571) 272-

3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NJ/
Examiner, Art Unit 2616
4/28/2008

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616